

**WHAT IS CLAIMED IS:**

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1 1. A method for preventing data corruption in a Floppy  
2 Diskette Controller, applied to a computer system having: a  
3 central processing unit; a system interrupt clock; a floppy  
4 diskette; a floppy diskette controller for controlling the  
5 data transfer to the floppy diskette; peripherals associated  
6 with the floppy diskette controller for providing a DMA  
7 request (DREQ) and a DMA acknowledgement (DACK), the DREQ  
8 being issued when data transfer is requested by the computer  
9 system and the DACK being issued when data transfer is  
10 permitted;

11 the method comprising the steps of:

12 determining if a requested computer system operation  
13 accesses the data from a FDC;

14 measuring the time for DMA request (DREQ) from the  
15 issue to the removal; and

16 signaling an error from the computer system if the  
17 measured time exceeds a specific value.

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1 2. The method of Claim 1, further comprising the steps  
2 of:

3 pre-hooking an interpose service routine to an  
4 interrupt vector intercepted by the system interrupt clock;

5 increasing the interrupt rate provided by the system  
6 interrupt clock, wherein the measured time is performed  
7 through the interpose service routine for every interrupt;  
8 and

9 recovering the system interrupt clock to interrupt  
10 normally after the floppy diskette data transfer is  
11 completed and unhooking the interrupt vector.

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1 3. A method for preventing data corruption in a Floppy  
2 Diskette Controller, applied to a computer system having: a  
3 central processing unit; a system interrupt clock; a floppy  
4 diskette; a floppy diskette controller for controlling the  
5 data transfer to the floppy diskette; peripherals associated  
6 with the floppy diskette controller for providing a DMA  
7 request (DREQ) and a DMA acknowledgement (DACK), the DREQ  
8 being issued when data transfer is requested and the DACK  
9 being issued when data transfer is permitted;

10 the method comprising the steps of:

11 determining if a requested computer system operation  
12 accesses the data from a FDC;

13 programming the system interrupt clock to increase the  
14 interrupt rate provided by the system interrupt clock,  
15 wherein the existence of DMA request (DREQ) is detected for  
16 every interrupt issued by the system interrupt clock;

17 calling the floppy diskette service routine of the  
18 computer system so as to access the data from the floppy  
19 diskette;

20 measuring the time for DMA request (DREQ) from the  
21 issue to the removal and recording the maximum time;

22 signaling an error from the computer system if the  
23 measured time exceeds a specific value; and

24 reprogramming the system interrupt clock to recover the  
25 interrupt at a normal rate.  
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